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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/812,971 | 03/19/2001 | Warren Edward Baxley | 199-0242US | 9998 |

7590 01/31/2005
TERRIL G. LEWIS
WONG CABELLO, LLP
20333 S.H. 249
SUITE 600
HOUSTON, TX 77070

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| EXAMINER |
| LIN, WEN TAI |

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| ART UNIT | PAPER NUMBER |
| 2154 | |

DATE MAILED: 01/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/812,971 | BAXLEY ET AL. | |
| | Examiner | Art Unit | |
| | Wen-Tai Lin | 2154 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 October 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 20-23 is/are allowed.
- 6) ☒ Claim(s) 1-4, 6, 9, 11-14 and 19 is/are rejected.
- 7) ☒ Claim(s) 5, 7, 8, 10 and 15-18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-23 are presented for examination.
2. The text of those sections of Title 35, USC code not included in this action can be found in the prior Office Action.
3. Claims 20-23 are allowable because the prior art of record does not teach or suggest individually or in combination a method for tuning the allocation of multipoint control unit resources for multipoint network events such as video conferencing by establishing a statistical, self-tuning model on the multipoint network events, wherein predetermined tuning intervals are used to measure and normalize the actual utilization of MCU resources in comparison with accumulated multipoint network events, and determine a probability value for future use of MCU resources based on the measured past events and their respective resource utilization.

Claim Rejections - 35 USC § 103

4. Claims 1-4, 9 and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nyrud [WO 98/57485] in view of Official Notice.

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5. Nyrud was cited in the previous office action, which was obtained from the IDS filed on 1/3/2003.

6. As to claim 1, Nyrud teaches the invention substantially as claimed including: a method for allocating MCU resources for a multipoint network event, said method comprising the steps of:

receiving an allocation request for the multipoint network event, said request at least associated with a number for the maximum MCU resources for the multipoint network event, determining the number of MCU resources to allocate at the start of the multipoint network event [page 6, line 36 - page 7, line 13].

Nyrud did not specifically teach that the start MCU resources allocation number is less than or equal in value than the maximum MCU resources number.

However, Official Notice is taken that it is a well-known practice not to assign resource amount more than what is being requested (i.e., more than what can be requested). Therefore, it is obvious to maintain such a practice in Nyrud's system because an over-booked system tends to spend additional time resolving resource conflicts and would thus substantially degrade the system performance and efficiency.

7. As to claims 2-4, Nyrud further taught that the step of receiving the allocation request originates in the plurality of MCUs, a common channel signaling interface, or as an external allocation request [Fig.1; page 10, lines 12 - 29; page 2, line 31 - page 3,

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line 6; that is, requests could come from any entity of the LAN across the WAN as a direct call or Internet connection into a specific MCU].

8. As to claims 9 and 11-13, since the features of these claims can also be found in claims 1-4, they are rejected for the same reasons set forth in the rejection of claims 1-4 above.

9. Claims 6, 14 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nyruud [WO 98/57485], as applied to claims 1-4, 9 and 11-13 above, further in view of Yang et al.(hereafter "Yang") [U.S. Pat. No. 6192243].

10. Yang was cited in the previous office action, which was cited from the IDS filed on 6/10/2002.

11. As to claim 6, Nyruud teaches the invention substantially as claimed including: a method for dynamical allocation of MCU resources during a multipoint network event [page 5, lines 24-26], said method comprising the steps of determining the number of MCU resources to allocate for the start of the multipoint network event [page 6, line 36 - page 7, line 13].

Nyruud does not specifically teach a method for time varying allocation of MCU resources during a multipoint network event, wherein at each of a plurality of modeling

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intervals during the multipoint network event, adjusting the number of allocated MCU resources based on users actually in the multipoint network event.

Yang taught a method of adjusting the number of allocated resources as a time-varying event based on a plurality of modeling intervals [col.3, lines 35-55; col.8, line 41 - col.9, line 24].

It would have been obvious to combine the teachings of Nyrud and Yang, because Yang's time-varying modeling based on pre-selected time intervals would make Nyrud's resource allocation method dynamically reflecting the true usage of resources for the entire event.

12. As to claims 14 and 19, since the features of this claim can also be found in claims 1-4, 6, 9 and 11-13, they are rejected for the same reasons set forth in the rejection of claims 1-4, 9 and 11-13 above.

13. Claims 5, 7-8, 10 and 15-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Biggs, et al. [U.S. Pat. No. 5625407];

Butler [U.S. Pat. No. 6584493];

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Fitzgerald, et al. [U.S. Pat. No. 6611503]; and

Leondires, et al. [U.S. Pat. No. 5841763].

15. Applicant's arguments filed on 10/28/2004 for claims 1-4, 6, 9, 11-14 and 19 have been fully considered but they are not deemed to be persuasive.

16. Applicant argues in the remarks that:

With respect to independent claims 1, 6 and 9:

1. Nyrud teaches allocation of telephone numbers for teleconferencing. Nyrud does not teach allocation of MCU resources.

2. Nyrud's allocation of telephone numbers appears to occur in advance of the multipoint network event (i.e., a reservation), rather than at the start of the event.

3. Applicant challenges the examiner's use of Official Notice and requests evidentiary document to support the examiner's assertion.

With respect to claim 6:

4. The combination of Nyrud and Yang is inappropriate because Yang's and Nyrud's networks are different (i.e., circuit switching versus packet switching).

17. Examiner respectfully disagrees with applicant's remarks:

1. As to point 1, since the term "MCU resources" has not been clearly defined in Applicant's disclosure, it has been construed as any resource associated with (e.g., belong to or under the control of) the multipoint control unit (MCU) or media server. In

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fact, the statement found in the "Field of Invention" section of Applicant's specification supports such a broad interpretation. Since Nyrud's allocation of telephone number is also for teleconferencing, wherein each telephone number is associated with a line or port connecting to the MCU or media server, it is asserted that Nyrud's telephone numbers are MCU resources [See Nyrud: page 6, line 28- page 7, line 2].

2. As to point 2, it is noted that the claim language of claim 1 sets the allocation method into two stages: (i) a reservation stage (see claim 1, lines 3-5) and (ii) an allocation stage (see claim 1, lines 6-8), wherein stage (i) appears to occur before the conference and stage (ii) appears to occur at the start of the reserved conference. In a corresponding passage, Nyrud also teaches that a conference needs to be requested, for which a range of telephone number is obtained at the reservation stage (see page 7, lines 2-9), and the dynamic resource allocation starts at the beginning of the conference (see page 7, lines 1-2 and 9-13; i.e., an initial allocation based on the actual number of users at the start of the conference and the resource capacity). Note that the obtained range of telephone number is not exclusively used by a conference. Nyrud's method allows allocation to take place dynamically, but the number of MCU resources can never be greater than the maximum capacity of the resources.

3. As to point 3, the Official Notice the examiner used previously stated a ubiquitously known fact. That is: "not to assign resource amount more than what is being requested". In other words, the number of resource units that can be allocated for simultaneous use is always bounded by the maximum number of physical capacity that is available at the time of actual use. Since Applicant does not consider the statement to

be well known, the examiner provides the following two references as evidentiary support: (i) the Authoritative Dictionary of IEEE Standards and Terms, (7th Edition, published by Standards Information Network IEEE Press), which defines “resource allocation” as “the assignment of physical resources to virtual resources such that the virtual resource requirements are satisfied” and (ii) Applicant’s admitted prior art (AAPA) on page 1, lines 15-19, which states that allocation to an ad-hoc or unreserved event that occurs on a capacity-permitting basis; all boils down to a limitation (or maximum number of physical resources) bounded by the physical capacity. In the case of Nyrud, the allocation is conducted dynamically based on the actual number of simultaneous users (which equates to “the number of MCU resources to allocate” [i.e., the number of virtual resources required] at any point of the conference), while “the maximum MCU resources number” is being equated to the maximum physical capacity [i.e., the number of physical resources] at each allocation instance.

4. As to point 4: It is noted that the combination of Nyrud and Yang’s teaching is justified because Yang’s time-varying empirical modeling approach (which is the sole feature the previous 103 rejection relied upon) is technology independent.

For at least the above reasons, it is asserted that the prior art of record reads on the cited claims.

18. THIS ACTION IS MADE FINAL.. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

19. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wen-Tai Lin whose telephone number is (571)272-3969. The examiner can normally be reached on Monday-Friday (8:00-5:00) .

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (571)272-3964. The fax phone numbers for the organization where this application or proceeding is assigned are as follows:

(703)872-9306 for official communications; and

(571)273-3969 for status inquires draft communication.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Wen-Tai Lin

January 27, 2005

Wen-Tai Lin
1/27/05